

Organelle Structure & Function Mix & Match

Structure/Description		Organelle	Function
A	Membrane bound sack in the plant cell.	_D_ Cell (Plasma) _9_ Membrane	1 It is the spot of photosynthesis where "food" is made for plant cells.
B	Spherical, often in the center of the cell, bounded by a membrane.	_B_ Nucleus _3_	2 It is used to transport food or other materials from one part of the cell to another.
C	Tiny, round organelles that float around in the cytoplasm or attaches to the ER.	_E_ Cytoplasm _5_	3 Cell brain or the computer" of the cell. Contains genetic information.
D	Semi-permeable membrane surrounding the cell.	_A_ Vacuole _6_	4 Transports materials out of the cell in vesicles.
E	Semi-fluid between the cell membrane and the nucleus.	_H_ Cell Wall _7_	5 Jelly-like substance within the cell that holds up the other cell parts in the cells.
F	White, maze-like cell part surrounding the nucleus	_G_ Mitochondria _10_	6 It's the "warehouse" in a cell that stores food and waste products.
G	Shaped like a jelly bean or peanut.	_I_ Chloroplasts _1_	7 It supports and provides rigidity for cells.
H	Surrounds a plant cell.	_F_ Endoplasmic _2_ Reticulum	8 It creates protein.
I	Green, similar in shape to a mitochondria.	_C_ Ribosomes _8_	9 "Traffic-cop". It selects what enters the cell.
J	Stacks of saucer-like membranes	_J_ Golgi Apparatus _4_ (Body)	10 Called the "powerhouse of the cell" because it creates energy for cells.

Cell Organelles Questions:

1. 1. Describe 2 similarities and 2 differences between plant cells and animal cells.

Similarities	Differences
<ul style="list-style-type: none"> - Cytoplasm - Nucleus - Golgi - ER - Ribosomes - Cell membrane - Mitochondria - Cytoskeleton 	<ul style="list-style-type: none"> - Cell wall in plants - Chloroplasts in plants - Vacuole size (1 large in plants, 1 or more small in plants) - Lysosome in animals cells - Plastids in plant cells - Shape (round vs. rectangular)

- Flagella (in some cells)	
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2. How are the functions of the endoplasmic reticulum and golgi apparatus related?
Both used for transport within the cell – ER: membrane channels, GA: packages into vesicles
3. Six of the organelles (other than the plasma membrane) contain one or more membranes. List these organelles.
ER, Golgi, Vesicle, Lysosome, Vacuole, Mitochondria, Chloroplast
4. Different cells contain different amounts of each organelle.
 - a) What type of organelle would be found in high amounts in a leaf cell?
Chloroplast – used for photosynthesis
 - b) What type of organelle would be found in high amounts in a muscle cell?
Mitochondria – produce energy
 - c) What type of organelle would be found in high amounts in a liver cell (the liver is an organ responsible for breaking down food and detoxifying the blood)?
Several possible answers: Golgi apparatus – transport out of cell, lysosome – breakdown of toxins